

Handout #5: Functionalism

Functionalism: Mental state types are functional state types, individuated by a functional role linking percepts, other mental states, and behaviors.

I. What is a functional state/property/kind?

A functional state of an object(/system) is given by a description specifying what it does, usually called its job description. Some examples:

Functional property	Job description
<ul style="list-style-type: none">• being a carburetor• being an engine• being a mousetrap• being a heart• being a light switch	<ul style="list-style-type: none">• mixer of fuel and air• converter of chemical to kinetic energy• live mouse in, dead mouse out• circulator of blood• turns lights off (/on)

II. General form of a Functionalist analysis

M is the internal state apt to be caused by characteristic *inputs* and apt to cause characteristic *outputs*, among which are other *mental states*.

Two simple examples

- ◆ *Pain* = the internal state apt to be caused by *tissue damage* and apt to cause an internal state of *anxiety* and *avoidance behavior*.
- ◆ *Belief that there is beer in the fridge* = the internal state apt to be caused by *perceiving* beer in the fridge and apt to combine with with the *desire for beer* to cause *walking* over to the fridge and *beer-grabbing*.

III. The allure of Functionalism

A. Functionalism > Behaviorism

1. Recall that the holistic nature of mentality poses a problem for behaviorism. Any candidate pairing of a mental state with some behavior will always be defeasible, given

the presence of other mental states.

The behaviorist aims to reduce the mental states to behavioral states by claims like

(*) For x to have a toothache is for x to wince, groan, and hold his jaw.

But, if x *believed* that by wincing he would be smacked and *desired* not to be smacked, then x would not wince (groan, etc.). This complex relationship to other mental states precludes any pure reduction of mental states to behavioral states.

2. Holism is not a problem for functionalism. The holistic nature of mentality is enshrined in the functionalist's view, according to which mental states are individuated by their relations to perceptions, behaviors, and *other mental states*.

B. Functionalism > Type Identity Theory

1. The Identity theory is charged with being too chauvinistic -- it denies that non-humans can be in the same type of mental state because they differ in their underlying physical makeup. Conceptually and empirically, mental states can be realized in physically diverse systems. They are *multiply realizable*.
2. Multiple realizability is not a problem for the functionalism; indeed, it's a motivation. The functionalist individuates mental states abstractly as nodes in a causal nexus. Since mental states/properties/kinds are functional in nature and so realized by many different physical systems, it is misguided to (say) look for the universal physical substrate had by all organisms in pain.

Note well: the MR of the mental does not tell against token physicalism, according to which every token mental state is identical to some or other physical state.

IV. Two types of Functionalism

A.

Machine Functionalism: (i) To have a mind is to realize a Turing machine of sufficient complexity.
(ii) Mental states are identifiable as the columns in a TM's machine table – they are functions from symbols to <symbols, internal states, outputs> triples.

(Advocated first by Hilary Putnam in 1968; see Kim ch 5 for an explanation of Turing Machines)

Epistemological status: Machine functionalism is offered as an empirical model for systems capable

of mentality. Thus the two claims above are *a posteriori*¹. With respect to the mental state *pain*, the guiding question is: What is the **property** pain?

B.

Analytical Functionalism: Mental state *concepts* are analyzable in terms of functional concepts.

(The classic statement of this view is from David Lewis in 1972.)

For example, the analytical functionalist holds that

(#) the concept of pain = the concept of an internal state apt to be caused by ... and apt to cause . .

Epistemological status: Functionalism is a conceptual truth and thus it is knowable *a priori* (given one has the relevant concepts). It is known by just reflecting on our concepts of: pain, belief, perception, desire, memory, and action. In particular, no scientific theorizing or modeling is needed to know (#). With respect to the mental state *pain*, the guiding question is: What is the **concept** of pain?

[more on Lewis in the next handout]

1 A statement is justified *a priori* just in case its justified without any appeal to sense experience. (e.g. $2=2=4$)
A statement is justified *a posteriori* just in case its justified with some appeal to sense experience. (e.g. Grass is green)